

Sequence Listing

<110> Baker, Kevin
Botstein, David
Eaton, Dan
Ferrara, Napoleone
Filvaroff, Ellen
Gerritsen, Mary
Goddard, Audrey
Godowski, Paul
Grimaldi, Christopher
Gurney, Austin
Hillan, Kenneth
Kljavin, Ivar
Napier, Mary
Roy, Margaret
Tumas, Daniel
Wood, William

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME

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TODAY'S PCT/US

- <151> January 5, 1998
- <150> 60/074,086
<151> February 9, 1998
- <150> 60/074,092
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- <150> 60/075,945
<151> February 25, 1998
- <150> 60/112,850
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- <150> 60/113,296
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- <150> 60/146,222
<151> July 28, 1999
- <150> PCT/US98/19330
<151> September 16, 1998
- <150> PCT/US98/25108
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- <150> 09/216,021
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- <150> 09/218,517
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- <150> 09/254,311
<151> March 3, 1999
- <150> PCT/US99/12252
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- <150> PCT/US99/21090
<151> September 15, 1999
- <150> PCT/US99/28409
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- <150> PCT/US99/28313
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- <150> PCT/US99/28301
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PROTEIN SEQUENCES

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830 835 840

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卷之三

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tcagtagtga gtatttctca tagtgcagct ttatttatct ccaggatgtt 3150
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<210> 15
<211> 737
<212> PRT
<213> Homo Sapien

<400> 15
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Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
35 40 45
Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
50 55 60
Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75
Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90
Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105
Gly Asn Cys Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

TOP SECRET//COMINT

110	115	120
Cys Ile Cys Asn Glu Gly Tyr Glu Gly Pro Asn Cys Glu Gln Ala		
125	130	135
Leu Pro Ser Leu Pro Ala Thr Gly Trp Thr Glu Ser Met Ala Pro		
140	145	150
Arg Gln Leu Gln Pro Val Pro Ala Thr Gln Glu Pro Asp Lys Ile		
155	160	165
Leu Pro Arg Ser Gln Ala Thr Val Thr Leu Pro Thr Trp Gln Pro		
170	175	180
Lys Thr Gly Gln Lys Val Val Glu Met Lys Trp Asp Gln Val Glu		
185	190	195
Val Ile Pro Asp Ile Ala Cys Gly Asn Ala Ser Ser Asn Ser Ser		
200	205	210
Ala Gly Gly Arg Leu Val Ser Phe Glu Val Pro Gln Asn Thr Ser		
215	220	225
Val Lys Ile Arg Gln Asp Ala Thr Ala Ser Leu Ile Leu Leu Trp		
230	235	240
Lys Val Thr Ala Thr Gly Phe Gln Gln Cys Ser Leu Ile Asp Gly		
245	250	255
Arg Ser Val Thr Pro Leu Gln Ala Ser Gly Gly Leu Val Leu Leu		
260	265	270
Glu Glu Met Leu Ala Leu Gly Asn Asn His Phe Ile Gly Phe Val		
275	280	285
Asn Asp Ser Val Thr Lys Ser Ile Val Ala Leu Arg Leu Thr Leu		
290	295	300
Val Val Lys Val Ser Thr Cys Val Pro Gly Glu Ser His Ala Asn		
305	310	315
Asp Leu Glu Cys Ser Gly Lys Gly Lys Cys Thr Thr Lys Pro Ser		
320	325	330
Glu Ala Thr Phe Ser Cys Thr Cys Glu Glu Gln Tyr Val Gly Thr		
335	340	345
Phe Cys Glu Glu Tyr Asp Ala Cys Gln Arg Lys Pro Cys Gln Asn		
350	355	360
Asn Ala Ser Cys Ile Asp Ala Asn Glu Lys Gln Asp Gly Ser Asn		
365	370	375
Phe Thr Cys Val Cys Leu Pro Gly Tyr Thr Gly Glu Leu Cys Gln		
380	385	390
Ser Lys Ile Asp Tyr Cys Ile Leu Asp Pro Cys Arg Asn Gly Ala		
395	400	405

CONTINUATION

Thr	Cys	Ile	Ser	Ser	Leu	Ser	Gly	Phe	Thr	Cys	Gln	Cys	Pro	Glu
410									415					420
Gly	Tyr	Phe	Gly	Ser	Ala	Cys	Glu	Glu	Lys	Val	Asp	Pro	Cys	Ala
425									430					435
Ser	Ser	Pro	Cys	Gln	Asn	Asn	Gly	Thr	Cys	Tyr	Val	Asp	Gly	Val
440									445					450
His	Phe	Thr	Cys	Asn	Cys	Ser	Pro	Gly	Phe	Thr	Gly	Pro	Thr	Cys
455									460					465
Ala	Gln	Leu	Ile	Asp	Phe	Cys	Ala	Leu	Ser	Pro	Cys	Ala	His	Gly
470									475					480
Thr	Cys	Arg	Ser	Val	Gly	Thr	Ser	Tyr	Lys	Cys	Leu	Cys	Asp	Pro
485									490					495
Gly	Tyr	His	Gly	Leu	Tyr	Cys	Glu	Glu	Glu	Tyr	Asn	Glu	Cys	Leu
500									505					510
Ser	Ala	Pro	Cys	Leu	Asn	Ala	Ala	Thr	Cys	Arg	Asp	Leu	Val	Asn
515									520					525
Gly	Tyr	Glu	Cys	Val	Cys	Leu	Ala	Glu	Tyr	Lys	Gly	Thr	His	Cys
530									535					540
Glu	Leu	Tyr	Lys	Asp	Pro	Cys	Ala	Asn	Val	Ser	Cys	Leu	Asn	Gly
545									550					555
Ala	Thr	Cys	Asp	Ser	Asp	Gly	Leu	Asn	Gly	Thr	Cys	Ile	Cys	Ala
560									565					570
Pro	Gly	Phe	Thr	Gly	Glu	Glu	Cys	Asp	Ile	Asp	Ile	Asn	Glu	Cys
575									580					585
Asp	Ser	Asn	Pro	Cys	His	His	Gly	Gly	Ser	Cys	Leu	Asp	Gln	Pro
590									595					600
Asn	Gly	Tyr	Asn	Cys	His	Cys	Pro	His	Gly	Trp	Val	Gly	Ala	Asn
605									610					615
Cys	Glu	Ile	His	Leu	Gln	Trp	Lys	Ser	Gly	His	Met	Ala	Glu	Ser
620									625					630
Leu	Thr	Asn	Met	Pro	Arg	His	Ser	Leu	Tyr	Ile	Ile	Ile	Gly	Ala
635									640					645
Leu	Cys	Val	Ala	Phe	Ile	Leu	Met	Leu	Ile	Ile	Leu	Ile	Val	Gly
650									655					660
Ile	Cys	Arg	Ile	Ser	Arg	Ile	Glu	Tyr	Gln	Gly	Ser	Ser	Arg	Pro
665									670					675
Ala	Tyr	Glu	Glu	Phe	Tyr	Asn	Cys	Arg	Ser	Ile	Asp	Ser	Glu	Phe
680									685					690
Ser	Asn	Ala	Ile	Ala	Ser	Ile	Arg	His	Ala	Arg	Phe	Gly	Lys	Lys

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

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tgtaaaacga cggccagttt aatagacctg caattattaa tct 43

<210> 17
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

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<210> 18
<211> 508
<212> DNA
<213> Homo Sapien

<400> 18
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acgaaagtgt gacccccc tt tcaggcttc agggggactg gtcctcctgg 100
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tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggtaaggt 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttccctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgtatgca aatgaaaagc 400
aagatggagc caatttcacc tgtgtttgcc ttccctggta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

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aggagatgtc cgccctgggg aataatcaact ttattggttt tgtgaatgtat 150
tctgtacta agtctattgt ggcttgcg ttaactctgg tggtaaggt 200
cagcacctgt gtgcgggggg agagtcacgc aaatgacttg gagtgttcag 250
aaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttcctgtacc 300
tgtgaggagc agtaactgtgg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgtatca aatgaaaagc 400
aagatggggag caatttcacc tggtttgc ttcctggta tactggagag 450
ctttgccaaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500
taggggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
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<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcgg ttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

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gccccacacca tgccgggcac ctacgctccc tcgaccacac tcagtagtcc 150

cagcacccag ggcctgcaag agcaggcactt ggccctgtat cgggacttcc 200

cgctcgttggaa cggccacaac gacctgcccc tggcctaag gcaggtttac 250

cagaaaggc tacaggatgt taacctgcgc aatttcagct acggccagac 300

cagcctggac aggcttagag atggcctcggtt gggcgcccag ttctggtcag 350

cctatgtgcc atgccagacc caggaccggg atgcctgtcg cctcaccctg 400

gaggcagattt acctcatacg ccgcattgtgtt gcctcctattt ctgagcttggaa 450

gcttgttggacc tcggctaaag ctctgaacga cactcagaaa ttggcctgccc 500

tcatcggtt agaggggtggc cactcgctgg acaatagcctt ctccatctta 550

cgtaccttctt acatgctggg agtgcgttac ctgacgctca cccacaccc 600

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aaccgcctgg gcatgatggt agacttatcc catgtctcag atgctgtggc 750

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agcttcagggtt tggccttcgtt ggaaacctgc tgccgggtt cagacaagg 1150

PROBE DESIGNER

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<210> 24
<211> 433
<212> PRT
<213> Homo Sapien

<400> 24
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Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
 185 190 195
 Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
 200 205 210
 Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
 215 220 225
 Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
 230 235 240
 Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
 245 250 255
 Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
 260 265 270
 Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
 275 280 285
 Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
 290 295 300
 Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
 305 310 315
 Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
 320 325 330
 Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg
 335 340 345
 Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
 350 355 360
 Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
 365 370 375
 Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
 380 385 390
 Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
 395 400 405
 Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu
 410 415 420
 Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu
 425 430

<210> 25
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
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<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
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<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
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<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
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cgaccacact cagtagtccc agcacccagg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc gctcgtggac ggcacaacg acctgcccct 200
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aaaacccaag gacacc 1416

<210> 30
<211> 446
<212> PRT
<213> Homo Sapien

<400> 30
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Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

DRAFT - 09/20/2002

50	55	60
Tyr Gly Gln Thr Ser Leu Asp Arg	Leu Arg Asp Gly	Leu Val Gly
65	70	75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys	Gln Thr Gln Asp Arg	
80	85	90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg		
95	100	105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys		
110	115	120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu		
125	130	135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe		
140	145	150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn		
155	160	165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr		
170	175	180
Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala		
185	190	195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser		
200	205	210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val		
215	220	225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg		
230	235	240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly		
245	250	255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro		
260	265	270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys		
275	280	285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp		
290	295	300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr		
305	310	315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu		
320	325	330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg		
335	340	345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
 350 355 360
 Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
 365 370 375
 Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
 380 385 390
 Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
 395 400 405
 Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
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 Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
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<210> 31
 <211> 1790
 <212> DNA
 <213> Homo Sapien

<400> 31
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DRAFT - DRAFT

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<210> 32
<211> 422
<212> PRT
<213> Homo Sapien

<400> 32
Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg
1 5 10 15
Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Cys Val Leu Gly
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Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro
35 40 45
Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr
 65 70 75
 Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val
 80 85 90
 Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly
 95 100 105
 Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp
 110 115 120
 Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro
 125 130 135
 Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp
 140 145 150
 Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu
 155 160 165
 His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln
 170 175 180
 Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys
 185 190 195
 His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp
 200 205 210
 Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu
 215 220 225
 Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp
 230 235 240
 Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val
 245 250 255
 Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala
 260 265 270
 Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys
 275 280 285
 Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly
 290 295 300
 Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro
 305 310 315
 Phe Gly Ile Tyr Gly Ser Lys Ala Gly Ile Trp Ser Glu Trp
 320 325 330
 Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly
 335 340 345
 Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

350		355		360
Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys				
		365	370	375
Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln				
		380	385	390
Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp				
		395	400	405
Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro				
		410	415	420

Ala Arg

<210> 33
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
cccgccccgac gtgcacgtga gcc 23

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<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 34
tgagccagcc caggaactgc ttg 23

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<210> 35
<211> 50
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 35
caagtgcgct gcaacccctt tggcatctat ggctccaaga aagccggat 50

<210> 36
<211> 1771
<212> DNA
<213> Homo Sapien

<400> 36
cccacgcgtc cgctggtgtt agatcgagca accctctaaa agcagtttag 50

TOPIC 80 - 4/20/1996

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<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37
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1 5 10 15
Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg
20 25 30
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

200 205 210

Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe
215 220 225

Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu
230 235 240

Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys
245 250 255

Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu
260 265 270

Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile
275 280 285

Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln
290 295 300

<210> 38
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
ggtgaaggca gaaattggag atg 23

<210> 39
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 39
atcccatgca tcagcctgtt tacc 24

<210> 40
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 40
gctggtag tctatacatac agattttttt gctacacaag atcctcag 48

<210> 41
<211> 1377
<212> DNA
<213> Homo Sapien

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<400> 41
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<210> 42

<211> 243
<212> PRT
<213> Homo Sapien

<400> 42
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Ser Pro Pro Leu Asp Asp Asn Lys Ile Pro Ser Leu Cys Pro Gly
20 25 30
His Pro Gly Leu Pro Gly Thr Pro Gly His His Gly Ser Gln Gly
35 40 45
Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Asp Gly Ala Pro Gly
50 55 60
Ala Pro Gly Glu Lys Gly Glu Gly Gly Arg Pro Gly Leu Pro Gly
65 70 75
Pro Arg Gly Asp Pro Gly Pro Arg Gly Glu Ala Gly Pro Ala Gly
80 85 90
Pro Thr Gly Pro Ala Gly Glu Cys Ser Val Pro Pro Arg Ser Ala
95 100 105
Phe Ser Ala Lys Arg Ser Glu Ser Arg Val Pro Pro Pro Ser Asp
110 115 120
Ala Pro Leu Pro Phe Asp Arg Val Leu Val Asn Glu Gln Gly His
125 130 135
Tyr Asp Ala Val Thr Gly Lys Phe Thr Cys Gln Val Pro Gly Val
140 145 150
Tyr Tyr Phe Ala Val His Ala Thr Val Tyr Arg Ala Ser Leu Gln
155 160 165
Phe Asp Leu Val Lys Asn Gly Glu Ser Ile Ala Ser Phe Phe Gln
170 175 180
Phe Phe Gly Gly Trp Pro Lys Pro Ala Ser Leu Ser Gly Gly Ala
185 190 195
Met Val Arg Leu Glu Pro Glu Asp Gln Val Trp Val Gln Val Gly
200 205 210
Val Gly Asp Tyr Ile Gly Ile Tyr Ala Ser Ile Lys Thr Asp Ser
215 220 225
Thr Phe Ser Gly Phe Leu Val Tyr Ser Asp Trp His Ser Ser Pro
230 235 240
Val Phe Ala

<210> 43
<211> 24

1000 30° Artificial Sequence

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
tacaggccca gtcaggacca gggg 24

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
agccagcctc gctctcg 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
gtctgcgatc aggtctgg 18

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
gaaagaggca atggattcgc 20

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
gacttacact tgccagcaca gcac 24

<210> 48
<211> 45
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctctttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50

atccagcctg agaaaacaagc cgggtggctg agccaggctg tgcacggagc 100

acctgacggg cccaaacagac ccatgctgca tccagagacc tccccctggcc 150

gggggcacatct cctggctgtg ctccctggccc tccttggcac cacctgggca 200

gaggtgtggc caccggcagct gcaggagcag gtcggatgg ccggagccct 250

gaacaggaag gagagttct tgctcctctc cctgcacaac cgcctgcgca 300

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catcagcacc tgcactgccc actgtcccc tggctacacg ggcagatact 900

gccaagtgag gtgcagcctg cagtgtgtgc acggccgggtt ccgggaggag 950

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tgtcagagga aaggcgggggt gctggcccaag atcaagagcc agaaagtgc 1150

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<210> 50
<211> 455
<212> PRT
<213> Homo Sapien

<400> 50
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Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30
Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45
Lys Glu Ser Phe Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60
Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75
Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90
Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105
Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

SEQUENCE

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125	130	135
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140	145	150
Thr Gln Leu Val Trp Ala Thr Ser Ser Gln Leu Gly Cys Gly Arg		
155	160	165
His Leu Cys Ser Ala Gly Gln Thr Ala Ile Glu Ala Phe Val Cys		
170	175	180
Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly Lys Thr Ile		
185	190	195
Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr Ala Ser		
200	205	210
Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu Cys		
215	220	225
Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly		
230	235	240
Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr		
245	250	255
Thr Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His		
260	265	270
Gly Arg Phe Arg Glu Glu Glu Cys Ser Cys Val Cys Asp Ile Gly		
275	280	285
Tyr Gly Gly Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His		
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Thr Cys Asp Leu Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser		
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Glu Ala Asp Thr Tyr Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys		
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Gly Gly Val Leu Ala Gln Ile Lys Ser Gln Lys Val Gln Asp Ile		
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Leu Ala Phe Tyr Leu Gly Arg Leu Glu Thr Thr Asn Glu Val Thr		
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Asp Ser Asp Phe Glu Thr Arg Asn Phe Trp Ile Gly Leu Thr Tyr		
365	370	375
Lys Thr Ala Lys Asp Ser Phe Arg Trp Ala Thr Gly Glu His Gln		
380	385	390
Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro Asp Asn His Gly Leu		
395	400	405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 51

aggaacttct ggatcgggct cacc 24

<210> 52

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 52

gggtctgggc caggtggaaag agag 24

<210> 53

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

cccaaggact cttcccgctg ggccacaggg gagcaccagg cttc 45

<210> 54

<211> 2331

<212> DNA

<213> Homo Sapien

<400> 54

cggacgcgtg ggctgggcgc tgcaaagcgt gtcccgccgg gtcggcagc 50

gtccccggcc ctgcggccgc catgctcctg ctgtggggc tgtgcctggg 100

gctgtccctg tgtgtgggtt cgccaggaaga ggcgcagagc tggggccact 150

cttcggagca ggtggactc agggtcccga ggcagaatcag actgttgca 200

KODAK SAFETY FILM

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ccatgtctgc tggcacctt atcttgacc tcccagcctc cagaactgtg 2250
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
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Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu
125 130 135
Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys
140 145 150
Asp Lys Ala Ala Phe Phe Leu Ser Tyr Glu Glu Leu Leu Gln Arg
155 160 165
Arg Leu Gly Lys Tyr Glu His Ser Ile Ser Val Arg Pro Gln Gln
170 175 180
Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu Glu Ser Ala
185 190 195
Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln
200 205 210
Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser
215 220 225
Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys
230 235 240
Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu
245 250 255
Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Glu Gln Ser Ile
260 265 270
Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala
275 280 285
Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu
290 295 300
Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys
305 310 315
Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg
320 325 330
Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp
335 340 345
His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val
350 355 360
Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly
365 370 375
Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His
380 385 390
Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr
395 400 405
Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu

410

415

420

Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr
 425 430 435

Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu
 440 445 450

Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu
 455 460 465

Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr
 470 475 480

Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val
 485 490 495

Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser
 500 505 510

Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His
 515 520 525

Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile
 530 535 540

Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp
 545 550 555

Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr
 560 565 570

Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu
 575 580 585

Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg
 590 595 600

Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu
 605 610 615

Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met
 620 625 630

Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro
 635 640 645

Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly
 650 655 660

Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys
 665 670 675

Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His
 680 685 690

Leu Gly Ile Arg

TOPIC 30: Artificial DNA

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<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
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<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatatac agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

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ccagtgtgcg gcggcagcgg cggcggcggc gcctccggg ctccggcttc 100
tgctgttgc tttctccgcc gcggcactga tccccacagg tgatggcag 150
aatctgttta cgaaagacgt gacagtgtac gagggagagg ttgcgaccat 200
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PDB ID: 1B9D

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aacgtctca atttctgatg aaggaagata ctttgccag ctctataccg 400
atccccaca ggaaagttac accaccatca cagtcctggc cccaccacgt 450
aatctgatga tcgatatatcca gaaagacact gcggtgaaag gtgaggagat 500
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ggttcaaagg gaacacagag ctaaaaggca aatcgaggt ggaagagtgg 600
tcagacatgt acactgtgac cagtcagctg atgctgaagg tgcacaagga 650
ggacgatggg gtcccagtga tctgccaggt ggagcacccct gcggtcactg 700
gaaacctgca gacctcgaa tatctagaag tacagtataa gcctcaagtg 750
cacattcaga tgacttatcc tctacaaggc ttaacccggg aaggggacgc 800
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atgtatacga tcccccaaca actatccctc ctcccaacaac aaccaccacc 1050
accaccacca ccaccaccac caccatcctt accatcatca cagattcccg 1100
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acagtgatat tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
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PROTEIN SEQUENCES

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Phe Ser Ala Ala Ala Leu Ile Pro Thr Gly Asp Gly Gln Asn Leu
35 40 45

Phe Thr Lys Asp Val Thr Val Ile Glu Gly Glu Val Ala Thr Ile
50 55 60

Ser Cys Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu
65 70 75

Asn Pro Asn Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu
80 85 90

Lys Asp Ser Arg Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu
95 100 105

Lys Val Ser Leu Thr Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr
110 115 120

Phe Cys Gln Leu Tyr Thr Asp Pro Pro Gln Glu Ser Tyr Thr Thr
125 130 135

Ile Thr Val Leu Val Pro Pro Arg Asn Leu Met Ile Asp Ile Gln
140 145 150

Lys Asp Thr Ala Val Glu Gly Glu Ile Glu Val Asn Cys Thr
155 160 165

Ala Met Ala Ser Lys Pro Ala Thr Thr Ile Arg Trp Phe Lys Gly
170 175 180

Asn Thr Glu Leu Lys Gly Lys Ser Glu Val Glu Glu Trp Ser Asp
185 190 195

Met Tyr Thr Val Thr Ser Gln Leu Met Leu Lys Val His Lys Glu
200 205 210

Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His Pro Ala Val
215 220 225

Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln Tyr Lys
230 235 240

Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu Thr
245 250 255

Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys
260 265 270

Pro Gln Pro Val Met Val Thr Trp Val Arg Val Asp Asp Glu Met
275 280 285

Pro Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn
290 295 300

Leu Asn Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu Ala Ser Asn

TOPOGENIC DNA SEQUENCES

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<400> 64
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<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaaatctcc tcacaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atacgctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

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ccctctgtcg ctgcccgtgc tcctgtact ggccctgggg cctgggtgc 200
agggtgtccc atccggctgc cagtgcagcc agccacagac agtcttctgc 250
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DRAFT - 2008-06-09

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aaaaaa 2555

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<211> 598
<212> PRT
<213> Homo Sapien

<400> 69
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20 25 30
Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45
Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
50 55 60
Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
65 70 75
Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
80 85 90
Leu Arg Leu Pro Arg Leu Leu Leu Asp Leu Ser His Asn Ser
95 100 105
Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

TOP SECRET//COMINT

110	115	120
Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly		
125	130	135
Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp		
140	145	150
Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly		
155	160	165
Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu		
170	175	180
Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp		
185	190	195
Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly		
200	205	210
Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe		
215	220	225
Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu		
230	235	240
Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe		
245	250	255
Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala		
260	265	270
Asp Phe Gly Cys Pro Ala Thr Thr Thr Ala Thr Val Pro Thr		
275	280	285
Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu		
290	295	300
Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro		
305	310	315
Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln		
320	325	330
Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys		
335	340	345
His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly		
350	355	360
Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg		
365	370	375
Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr		
380	385	390
Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu		
395	400	405

PROBE SOURCE

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg
410 415 420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr
425 430 435
Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu
440 445 450
Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro
455 460 465
Gly Arg Val Pro Glu Gly Glu Ala Cys Gly Glu Ala His Thr
470 475 480
Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg
485 490 495
Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val
500 505 510
Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg
515 520 525
Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val
530 535 540
Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro
545 550 555
Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Glu Ala Leu
560 565 570
Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly
575 580 585
Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile
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<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccccaccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccc tccacctgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgcc accgtccacc tgcctcaatg gggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

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cttgcttctg ttcccatgg agctccg 1077

<210> 76
<211> 250
<212> PRT
<213> Homo Sapien

<400> 76
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Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
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Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
35 40 45
Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
50 55 60
Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
65 70 75
Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
80 85 90
Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
95 100 105
Val Leu Thr Gln Lys Gln Lys His Ser Val Leu His Leu
110 115 120

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu
125 130 135

Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala
140 145 150

Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu
155 160 165

Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln
170 175 180

Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg
185 190 195

Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser
200 205 210

Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
215 220 225

Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro
230 235 240

His Gly Thr Phe Leu Gly Phe Val Lys Leu
245 250

<210> 77
<211> 2849
<212> DNA
<213> Homo Sapien

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gggggggacc tgtggctgct cgtaccgccc cccaccctcc tcttctgcac 150
tgccgtcctc cggaagacct tttcccctgc tctgtttct tcaccgagtc 200
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<210> 78
<211> 281
<212> PRT
<213> Homo Sapien

<400> 78
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Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45
Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
50 55 60
Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75
Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
80 85 90
Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105
Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

110 115 120

Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly
125 130 135

Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val
140 145 150

Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val
155 160 165

Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met
170 175 180

Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe
185 190 195

Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His
200 205 210

Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val
215 220 225

Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu
230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg
245 250 255

Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe
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<210> 79
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 80
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<212> DNA
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<220>
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<400> 80
 ctgaagaagt agaggccggg cacg 24

<210> 81

<211> 45
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

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<210> 82
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<212> DNA
<213> Homo Sapien

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<211> 431
<212> PRT
<213> Homo Sapien

<400> 83
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TOP SECRET//COMINT

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Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu
35 40 45
Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
50 55 60
Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly
65 70 75
Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
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Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
95 100 105
Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
110 115 120
Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
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Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
140 145 150
Thr Pro Leu Ala His His Thr Asp Tyr Ser Lys Pro Thr Asp
155 160 165
Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
170 175 180
His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
185 190 195
Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser
200 205 210
Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
215 220 225
Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala
230 235 240
Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
245 250 255
Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro
260 265 270
Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr
275 280 285
Val Phe Thr Arg Ala Ala Ala Thr Leu Gln Ala Met Ala Thr Thr
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Ala Val Leu Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly

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305

310

315

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Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn
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Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg
350 355 360

Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly Ser Val Pro Glu Asn
365 370 375

Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu
380 385 390

Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly
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Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile
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<210> 85

<211> 18

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<220>

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<400> 85

gaagcaagtg cccagctc 18

<210> 86

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 86

cgggtccctg ctctttgg 18

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<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 88
<211> 18
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<220>
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agtgttaagtc aagctccc 18

<210> 89
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<400> 89
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<210> 90
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<212> DNA
<213> Homo Sapien

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DRAFT VERSION 2

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<212> PRT
<213> Homo Sapien

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35 40 45
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75
Tyr Arg Leu Leu Ser Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135
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140 145 150
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
170 175 180

Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

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<400> 93
aggcttggaa ctcccttc 18

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aagattcttg agcgattcca gctg 24

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<210> 96
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<400> 96
ctcaagaagc acgcgtactg c 21

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<210> 98
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catccaggct cgccactg 18

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<213> Artificial Sequence

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<210> 105

<211> 21

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<220>

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<210> 106

<211> 20

<212> DNA

<213> Artificial Sequence

TOP SECRET//COMINT

<223> Synthetic oligonucleotide probe

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<211> 19

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<213> Artificial Sequence

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<400> 109

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<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 111

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<210> 117

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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

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<210> 118
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<210> 120
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<220>
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<400> 120
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